



STATE OF MARYLAND

DHMH

Maryland Department of Health and Mental Hygiene
201 W. Preston Street • Baltimore, Maryland 21201

Martin O'Malley, Governor – Anthony G. Brown, Lt. Governor – Joshua M. Sharfstein, M.D., Secretary

August 14, 2012

Dear Colleague,

From July 12 to August 9, 2012, the Centers for Disease Control and Prevention (CDC) reported 153 cases of the novel strain of the influenza virus H3N2v related to swine exposure in Ohio, Indiana, Illinois and Hawaii.

Epidemiology:

Testing at CDC confirmed that these recent viruses are similar to the 14 swine-origin variant (H3N2v) viruses identified in 2011. These viruses all contain the “matrix (M) gene segment” from the pandemic 2009 H1N1 virus. The symptoms are similar to those of seasonal influenza. Thus far this year, the majority of cases have had relatively mild illness, although two patients were hospitalized but have since recovered. There have been no deaths. Of note, 93% of cases have occurred among children.

In 2011, limited and unsustained human-human transmission of this virus was documented. In 2012, no human-human transmission has been identified; all cases to date have had swine exposure, predominantly in the agricultural fair setting. Swine influenza viruses do not spread through contact with pork or pork products; eating properly handled and cooked pork is safe.

No Maryland H3N2v human cases have been identified to date. Ongoing surveillance for influenza in the healthcare and the agricultural setting continues. Novel influenza virus is a reportable disease in Maryland.

Clinical Diagnosis:

H3N2v virus infection *cannot* be distinguished by clinical features from seasonal influenza A or B virus infection, or from infection with other respiratory viruses that can cause influenza-like illness (fever and either cough or sore throat). Therefore, the key to suspecting H3N2v virus infection in an ill patient at this time is to elicit an *epidemiological link to recent swine exposure in the week prior to illness onset*:

- Direct contact (raising pigs, feeding pigs, cleaning pig waste) or indirect exposure to pigs – visiting a pig farm, walking through a swine barn at a fair, etc.), especially if pigs were known to be ill; or
- Close contact (within 2 meters or approximately 6 feet) with an ill person who had recent swine exposure.

A patient with influenza-like illness and an epidemiological link to recent swine exposure should be considered a ***probable H3N2v case***.

Clinician Reporting

Clinicians evaluating ill patients with recent exposure to swine (within 7 days of illness onset) or contact with an ill person with recent swine exposure should obtain a nasopharyngeal swab or aspirate (or a combined nasal swab and throat swab) from the patient, place the swab or aspirate in viral transport medium, and contact their local public health department to arrange transport and testing for H3N2v virus at the Maryland Department of Health and Mental Hygiene (DHMH) Laboratories Administration.

Clinical Guidance

For healthcare providers, CDC and Maryland DHMH advise the following regarding the H3N2v strain (<http://www.cdc.gov/flu/swineflu/h3n2v-clinician.htm>):

1. H3N2v has not yet been identified in Maryland among humans.
2. The clinical course for cases in 2012 does not indicate a heightened severity of illness over seasonal influenza severity.
3. In general, the recommendations for the clinical approach to H3N2v is the same as for seasonal influenza.
4. H3N2v is susceptible to oseltamivir (Tamiflu) and zanamivir (Relenza).
 - a. Antiviral treatment with oral oseltamivir or inhaled zanamivir is recommended ***as soon as possible*** for any hospitalized patient and those with evidence of severe complications or progressive illness suspected to have influenza, including H3N2v virus infection, without waiting for the results of laboratory testing.
 - b. Antiviral treatment with oral oseltamivir or inhaled zanamivir is recommended ***as soon as possible*** for outpatients suspected with influenza, including H3N2v virus infection, if they are in a group considered to be at [high risk for complications from influenza](#), without waiting for the results of laboratory testing.

- c. Antiviral treatment with oral oseltamivir or inhaled zanamivir is ***encouraged as soon as possible*** for non high-risk outpatients without underlying medical conditions and suspected to have H3N2v virus infection, without waiting for the results of laboratory testing. These persons may also benefit from antiviral treatment, especially if antiviral treatment can be started within 48 hours of illness onset.
 - d. Antiviral chemoprophylaxis (pre- or post-exposure) is not recommended, including for persons who are at higher risk for influenza complications. If such high-risk persons become ill, they should seek medical care as soon as possible and early antiviral treatment should be started if influenza, including H3N2v is suspected.
5. H3N2v is substantially different antigenically from human influenza A (H3N2) viruses; therefore the seasonal influenza vaccination is not expected to provide protective immunity. However, seasonal influenza vaccination is recommended for those over 6 months of age to protect from seasonal strains of influenza.
 6. Commercially available rapid influenza diagnostic tests lack sensitivity and specificity and may not accurately test for the virus. A negative test does not exclude infection with H3N2v or any influenza virus. A positive test for influenza A cannot confirm H3N2v because the rapid test cannot distinguish between influenza A virus subtypes and H3N2v.
 7. Surveillance at the Maryland Public Health Laboratories Administration is ongoing to identify the H3N2v should it occur in Maryland. Testing at DHMH using the CDC Flu rRT-PCR Dx suffices for laboratory confirmation, however positive specimens may also be forwarded to the CDC for additional testing.

Recommendations for the public

1. Those engaging in swine contact (including agricultural fairs) should wash their hands with soap and running water should occur before and after animal exposure, avoid eating and drinking in animal areas, avoid close contact with ill appearing animal; those humans who are ill should avoid animal contact.
2. Those at high risk for influenza complications (age less than 5 years or greater than 65 years, pregnant women and those with chronic medical conditions/immunosuppression) should consider avoiding exposure to pigs and swine barns this summer, especially if ill pigs have been identified.
3. Those with influenza like symptoms who are at high risk of influenza complications should seek medical attention to determine if treatment with antiviral medications is warranted.

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4. Those with influenza symptom onset within 7 days after swine exposure who seek medical care should inform their physician of recent swine exposure.
5. Seasonal influenza vaccination does not provide immunity to H3N2v but does provide protection against seasonal influenza and is recommended for all persons over 6 months of age.

General information on this novel H3N2v strain can be obtained on the CDC's website at <http://www.cdc.gov/flu/swineflu/>. Clinical guidance can be found at <http://www.cdc.gov/flu/swineflu/h3n2v-clinician.htm>.

Thank you for your collaboration and we will continue to keep you updated regarding this issue.

Sincerely,

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